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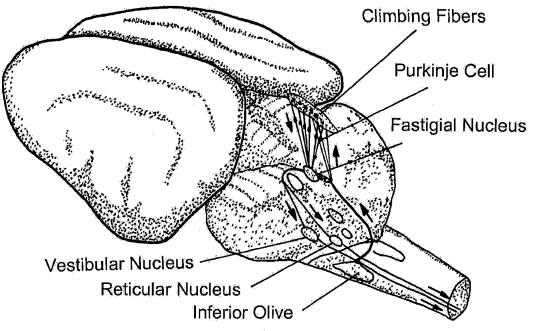
Inventor: Rodolfo R. Llinas et al.

Title: NEURO-MIMETIC CONTROL SYSTEMS AND METHODS

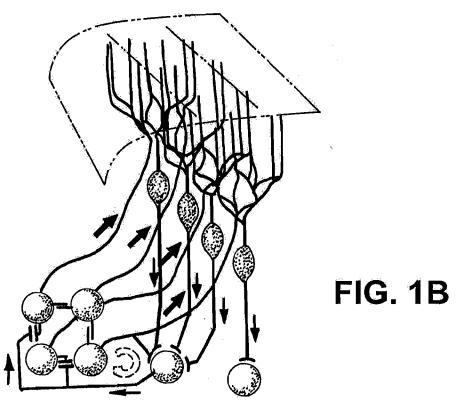
REPLACEMENT SHEET

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FIG. 1A



Olivo-cerebellar feedback loop



Functional circuit

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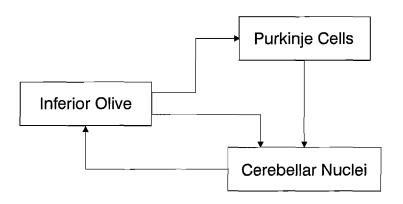
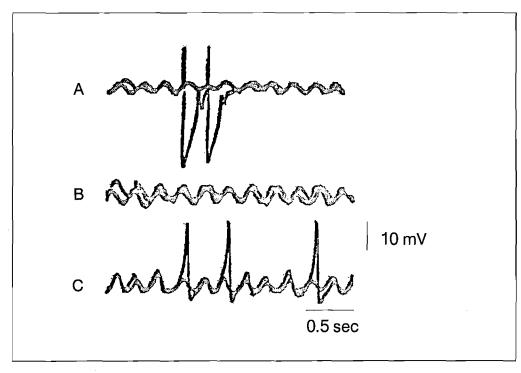


FIG. 1C



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FIG. 2

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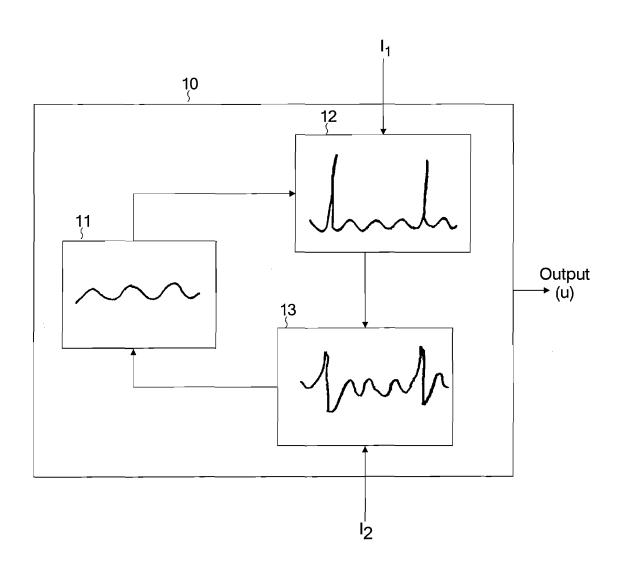


FIG. 3

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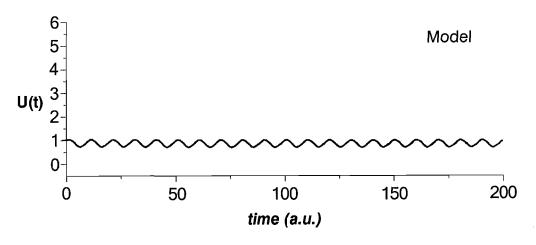


FIG. 4A

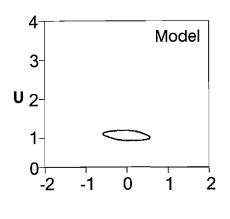


FIG. 4B

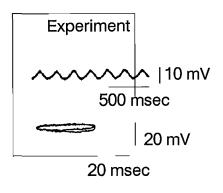


FIG. 4C

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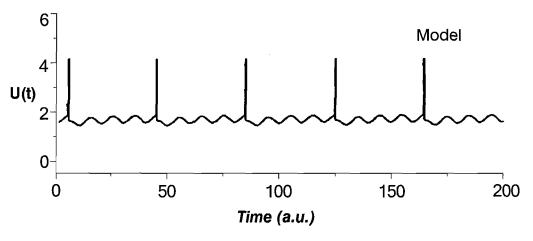


FIG. 5A

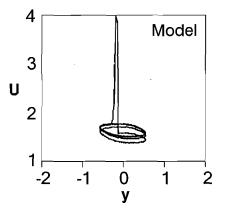


FIG. 5B

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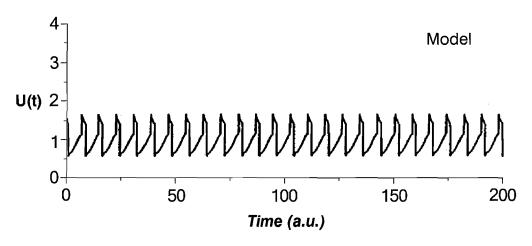
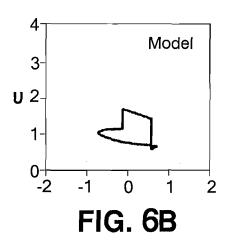


FIG. 6A



Experiment

| 10 mV | 500 msec

FIG. 6C

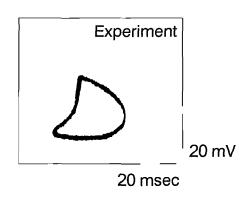


FIG. 6D

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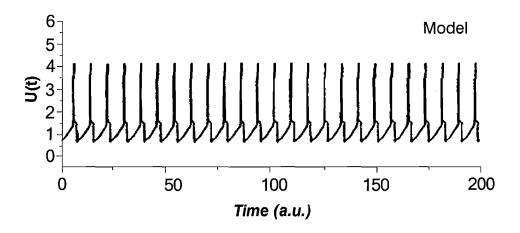
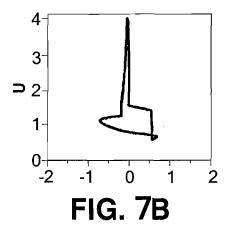
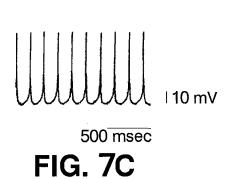


FIG. 7(a)





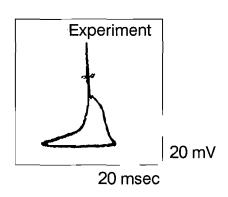


FIG. 7D

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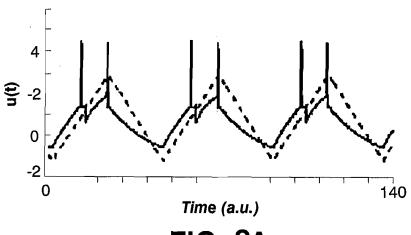


FIG. 8A

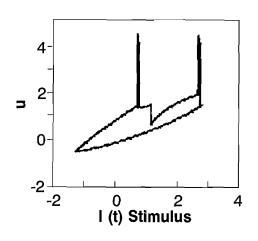


FIG. 8B

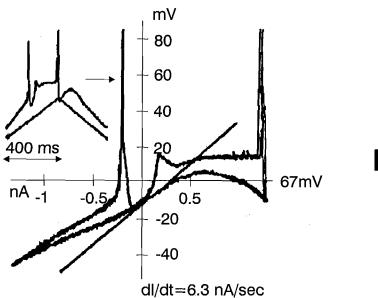


FIG. 8C

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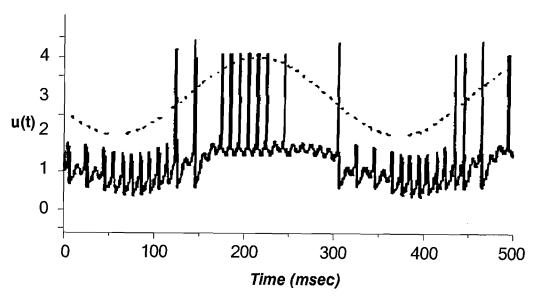


FIG. 8D

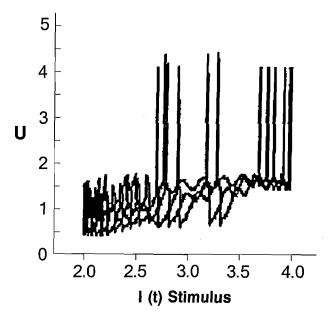
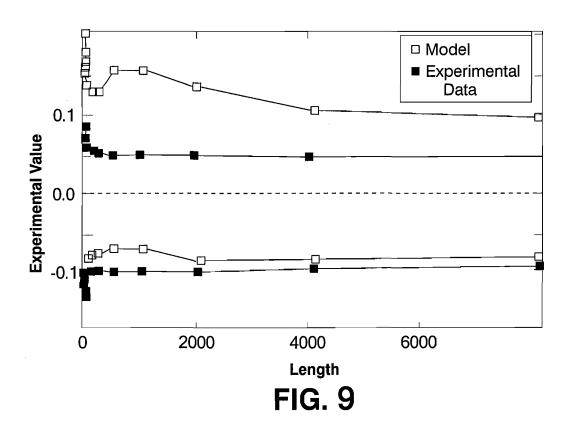


FIG. 8E

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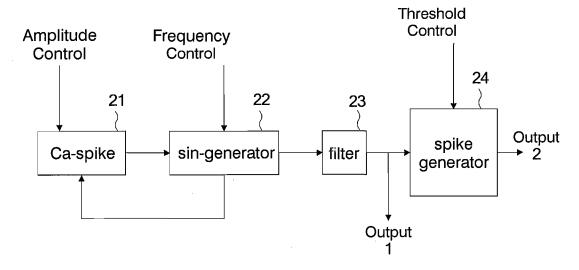
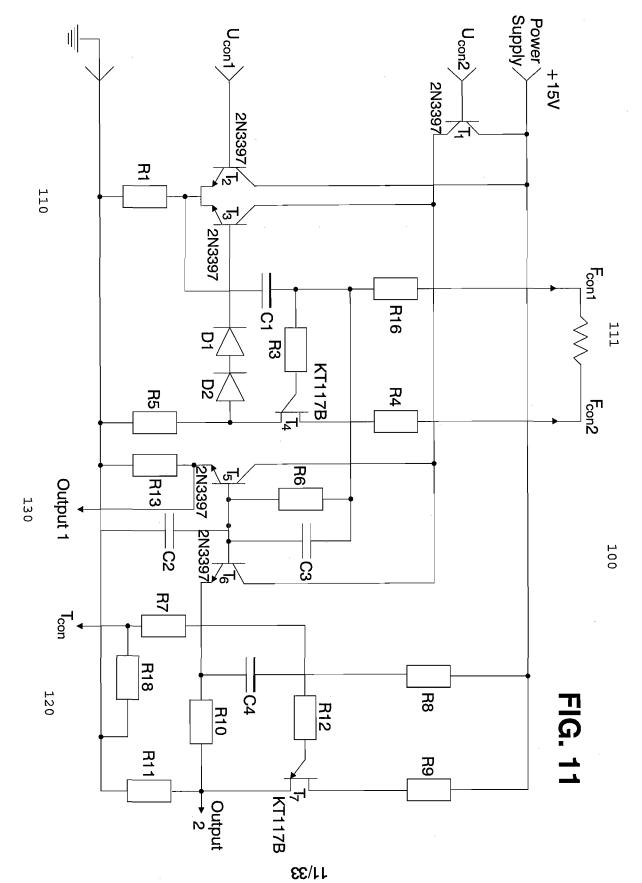


FIG. 10

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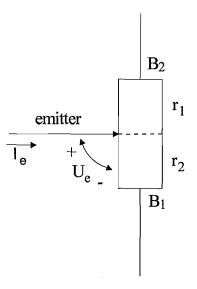


FIG. 12A

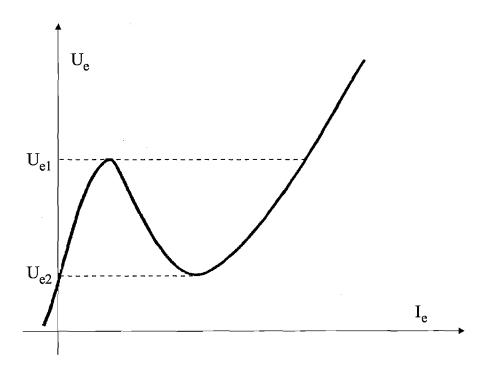
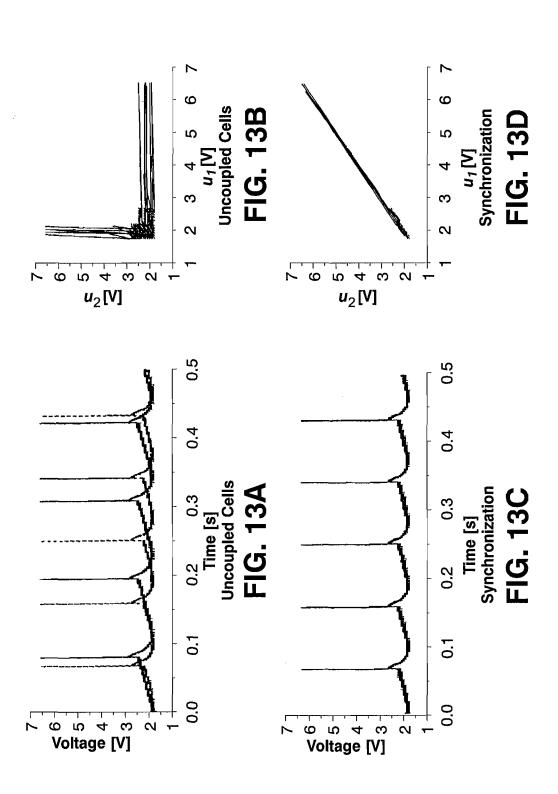


FIG. 12B

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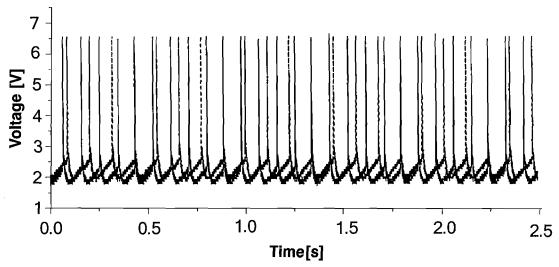
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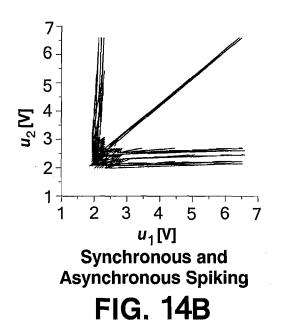
Inventor: Rodolfo R. Llinas et al.

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Synchronous and Asynchronous Spiking FIG. 14A



Lower coupling

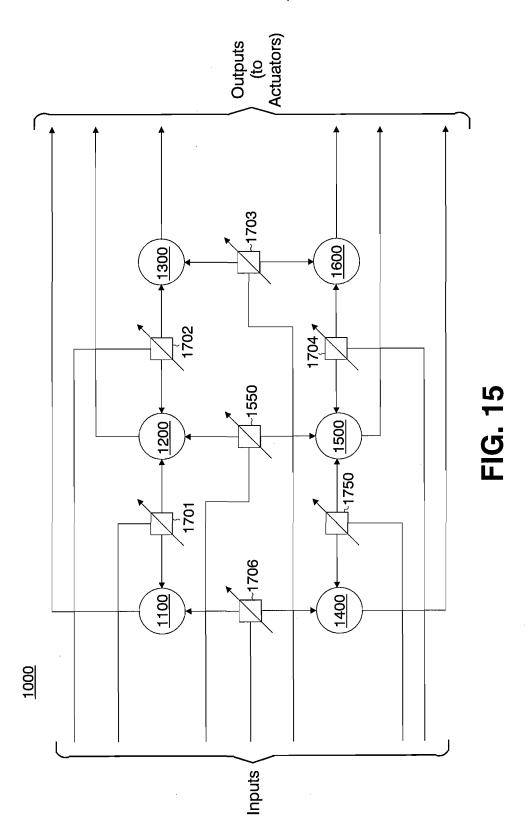
Time-dependent in-phase spiking

FIG. 14C

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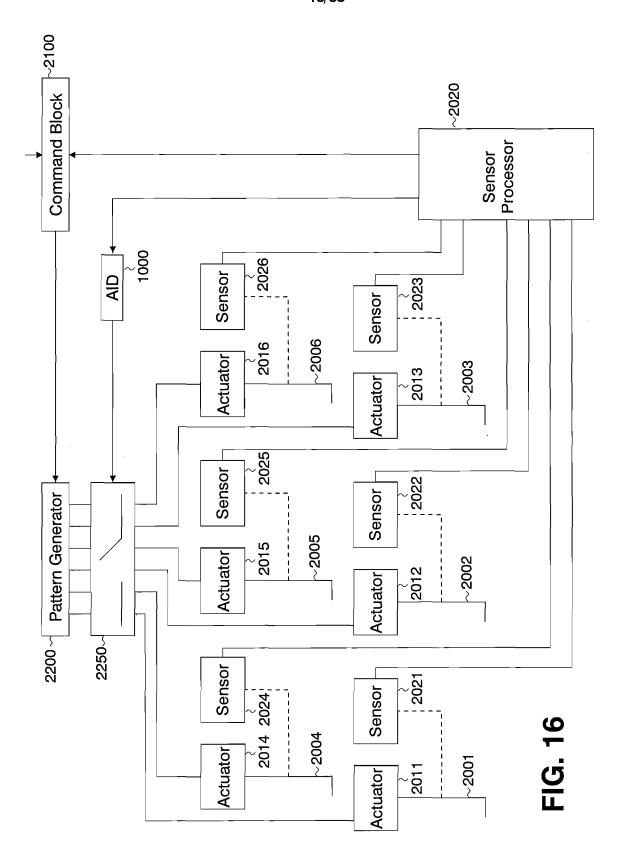
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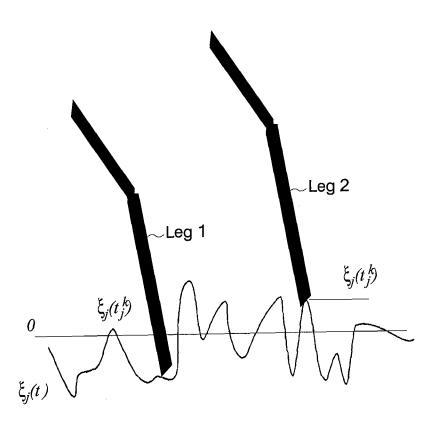
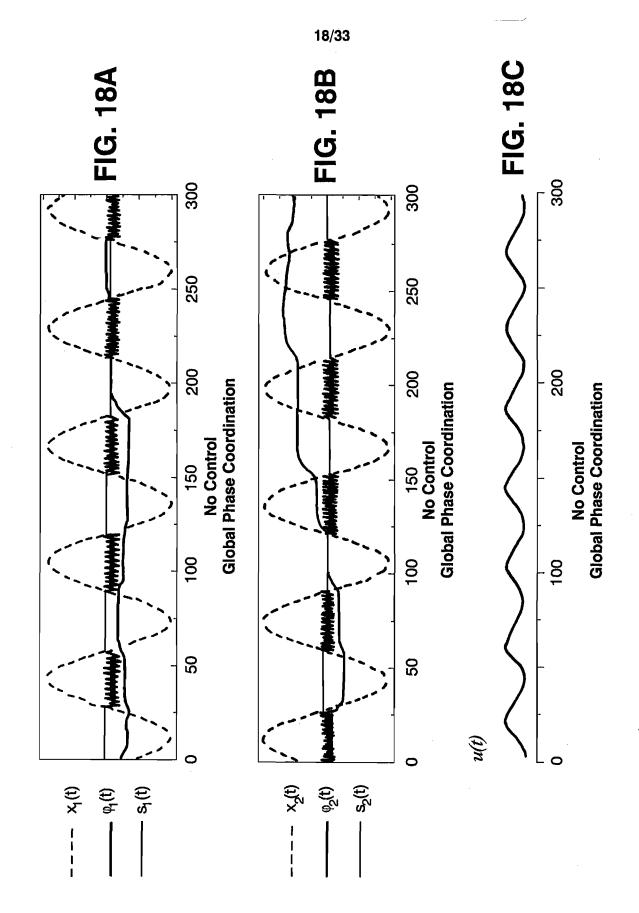


FIG. 17

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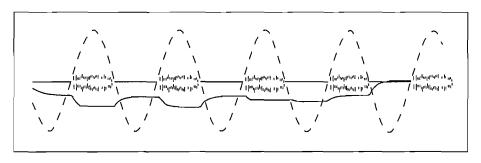
Inventor: Rodolfo R. Llinas et al.

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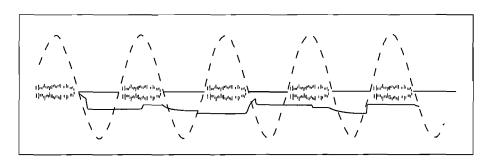
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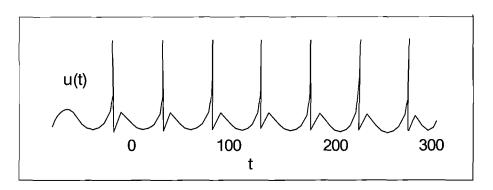
The control signal recovers the correct phase shift relations



Coordination with Discrete Control FIG. 19A



Coordination with Discrete Control **FIG. 19B**

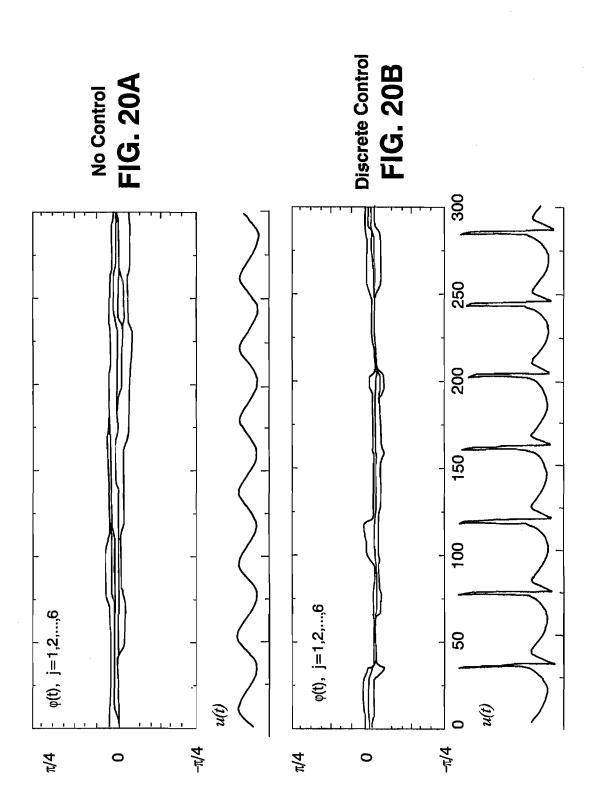


Coordination with Discrete Control FIG. 19C

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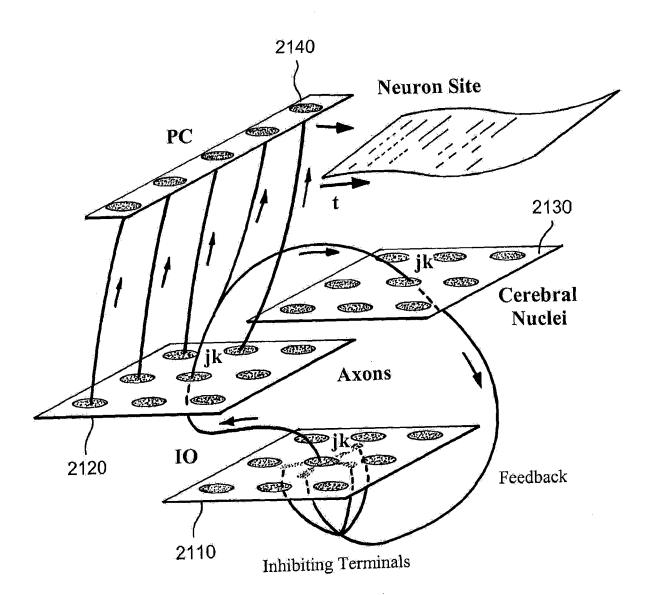


FIG. 21

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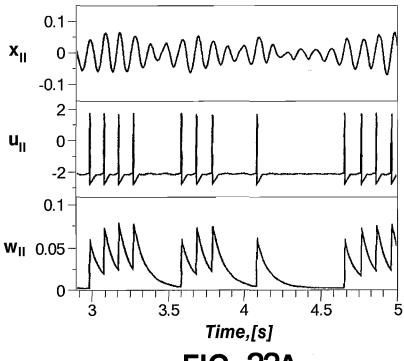


FIG. 22A

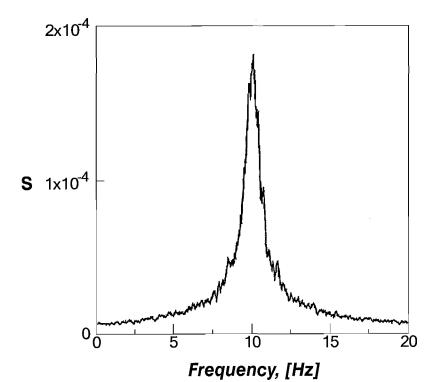


FIG. 22B

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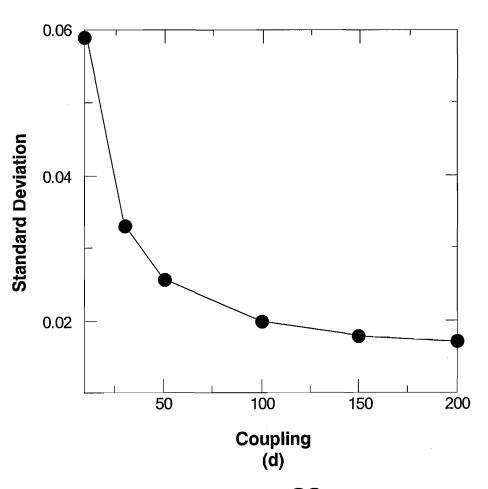


FIG. 23

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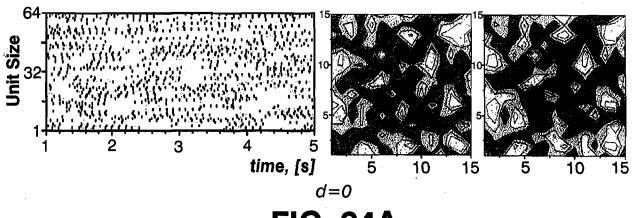


FIG. 24A

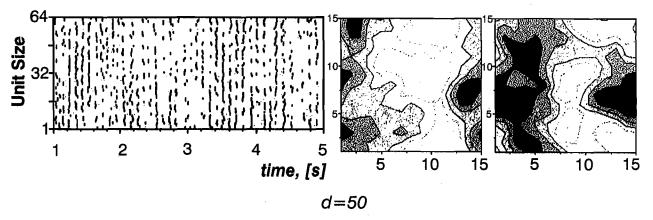


FIG. 24B

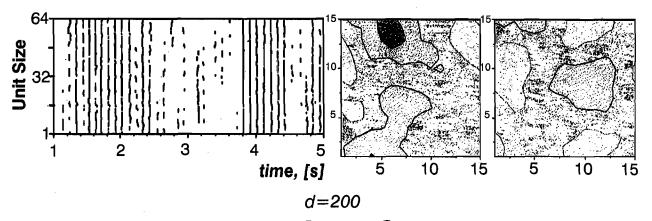
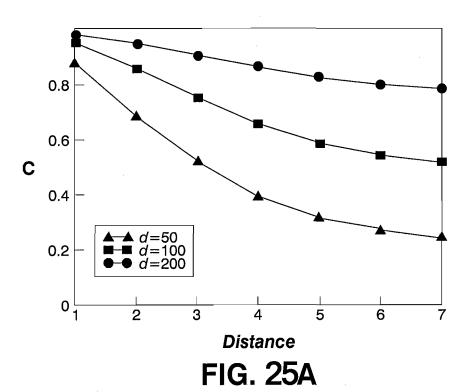


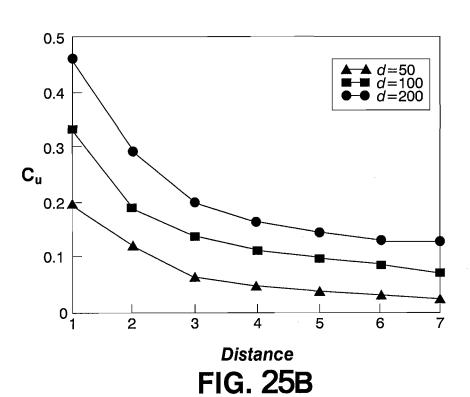
FIG. 24C

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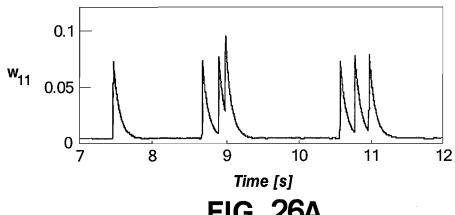


FIG. 26A

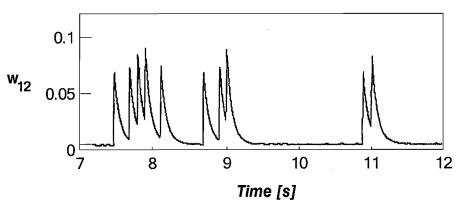


FIG. 26B

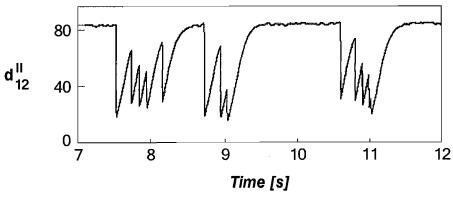
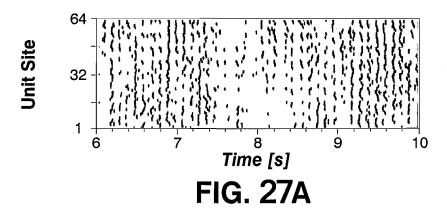


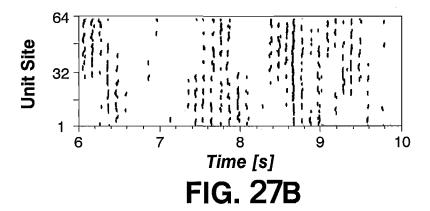
FIG. 26C

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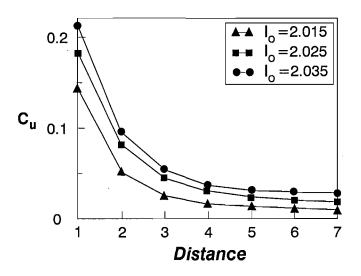
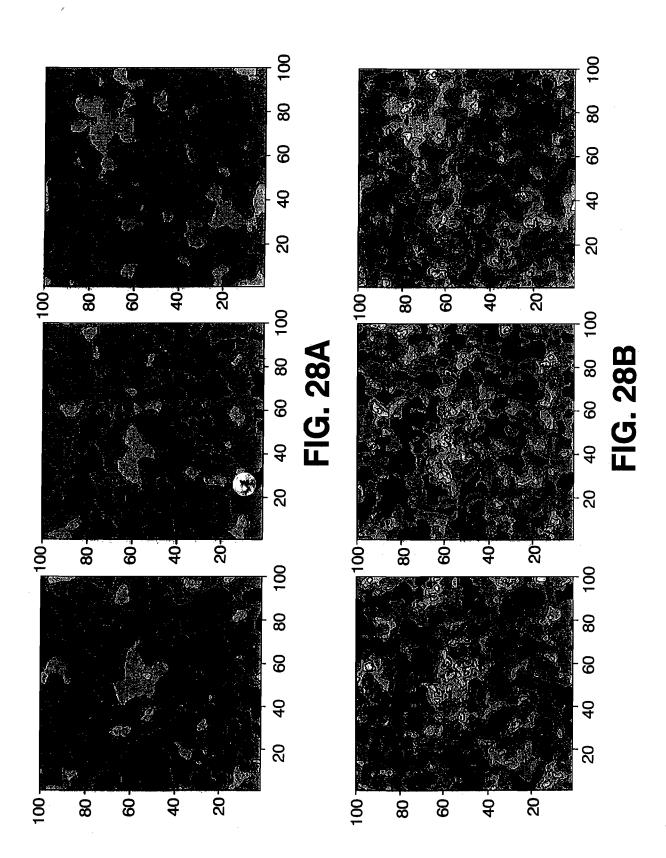


FIG. 27C

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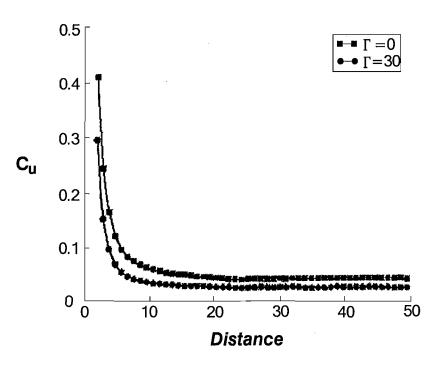


FIG. 29A

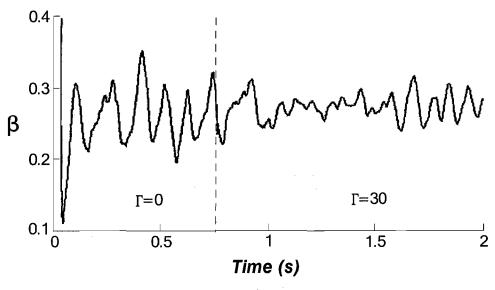


FIG. 29B

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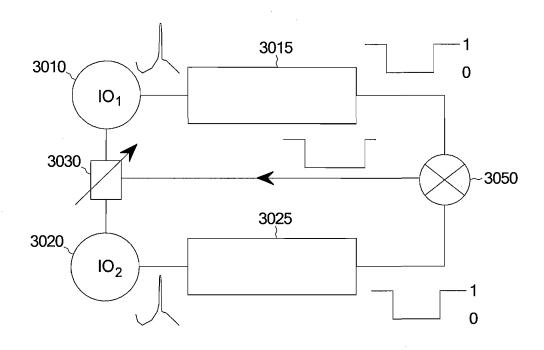


FIG. 30A

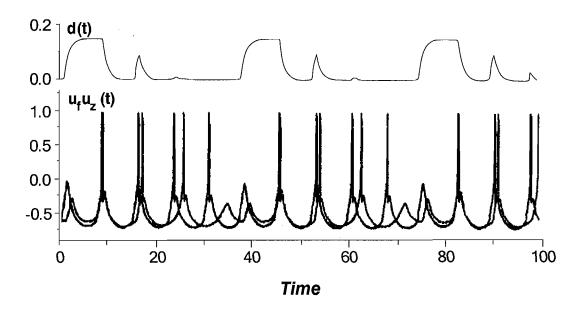
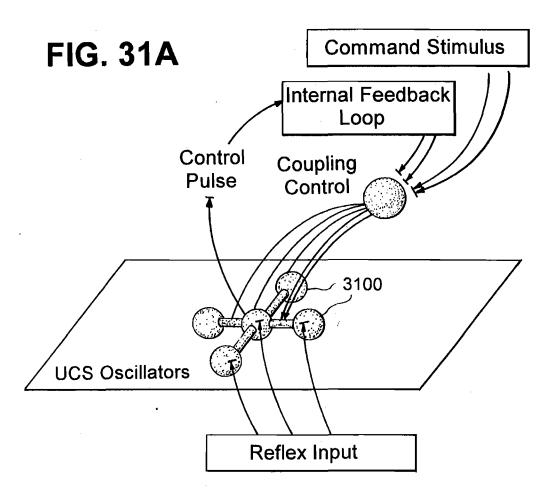


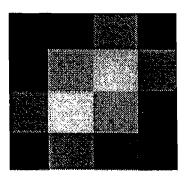
FIG. 30B

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Motor Pattern

FIG. 31B

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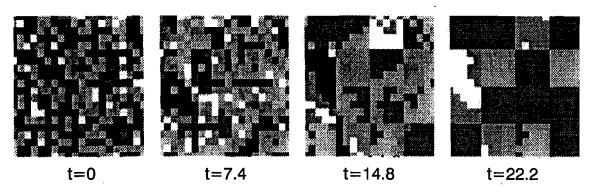


FIG. 32A

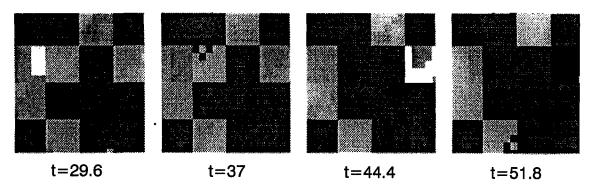


FIG. 32B

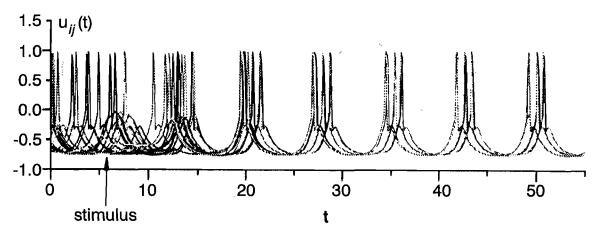


FIG. 32C

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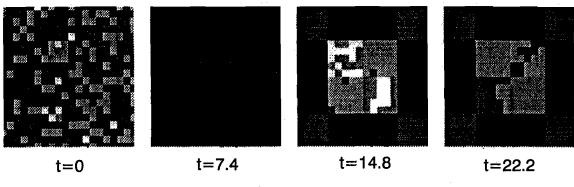


FIG. 33A

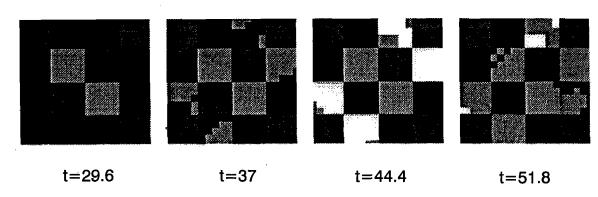


FIG. 33B

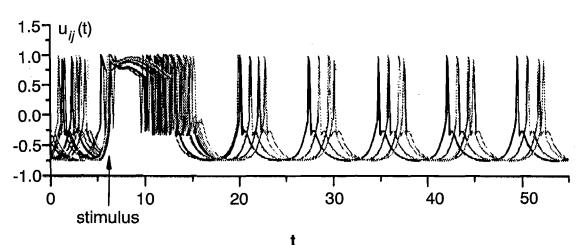


FIG. 33C